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DOLLAR TREE STORES, INC.

14 UNITED STATES DISTRICT COURT
15 NORTHERN DISTRICT OF CALIFORNIA
16

17 KASSONDRA BAAS and KELLY LOFQUIST,
individually and on behalf of all others
18 similarly situated,

19 Plaintiffs,

20 v.

21 DOLLAR TREE STORES, INC.,

22 Defendant.
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CASE NO. C 07-03108 JSW

**DECLARATION OF ROBERT W.
CRANDALL IN OPPOSITION TO
PLAINTIFFS' MOTION FOR CLASS
CERTIFICATION**

DATE: April 4, 2008
TIME: 9:00 a.m.
DEPT.: Crtrm. 2, 17th Floor
JUDGE: Hon. Jeffrey S. White

COMPLAINT FILED: June 13, 2007
TRIAL DATE: No date set.

1 1. I, Robert W. Crandall, am a Partner and founding member in
2 Resolution Economics LLC. Prior to being a founding member of Resolution Economics
3 in 1998, I was with the Dispute Consulting Group at Deloitte & Touch, the Economics &
4 Litigation Services at Altschuler, Melvoin & Glasser, and the Dispute Analysis &
5 Corporate Recover Group at Price Waterhouse. I have significant experience in
6 providing economic and statistical analysis and expert testimony related to class action
7 wage and hour and employment discrimination disputes. I am also highly experienced in
8 designing and conducting labor studies and surveys related to labor issues. Finally, I
9 provide a variety of non-litigation consulting services including: labor practices audits,
10 labor modeling, business operations analysis, and analysis of large scale complex data.
11 My hourly rate for consulting and testimony is \$500 per hour.

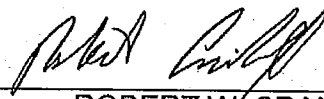
12 2. Resolution Economics was retained in the matter of Baas, et al. v.
13 Dollar Tree Stores to provide an analysis of Dollar Tree's employee time-clock records.
14 More specifically, we were asked to assess Plaintiffs' claim that Dollar Tree store
15 managers were regularly engaged in the practice of editing employee time records with
16 the net effect of shortening the duration of the working day and eliminating potential
17 overtime. What follows is a systematic analysis of employee time-clock data that seeks
18 to address these claims and to determine the actual frequency and nature of the alleged
19 practice. Additionally, this report examines whether patterns of managerial edit activity,
20 if present at all, were consistent across Dollar Tree store locations, across different
21 Dollar Tree employees, and whether the experiences of the named Plaintiffs, Baas and
22 Lofquist, were similar to those of other potential class members. Attached hereto as
23 Exhibit A is a true and correct copy of Resolution Economics report. A true and correct
24 copy of my resume is attached hereto as Exhibit B.

25 3. I have personally overseen the data analyses contained in this
26 report and, if called as a witness, I could and would competently testify about the
27 contents of this report.
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I declare under penalty of perjury that the foregoing is true and correct.

Executed this 11 day of March 2008, at Beverly Hills, California.



ROBERT W. CRANDALL

4838-5480-3458.1

EXHIBIT A

QUALIFICATIONS

1. I, Robert Crandall, am a partner and founding member in Resolution Economics LLC. Prior to being a founding Resolution Economics in 1998, I was with the Dispute Consulting Group at Deloitte & Touch, the Economics & Litigation Services at Altschuler, Melvoin & Glasser, and the Dispute Analysis & Corporate Recovery Group at Price Waterhouse. I have significant experience in providing economic and statistical analysis and expert testimony related to class action wage and hour and employment discrimination disputes. I am also highly experienced in designing and conducting labor studies and surveys related to labor issues. Finally, I provide a variety of non-litigation consulting services including: labor practices audits, labor modeling, business operations analysis, and analysis of large scale complex data. A copy of my resume is attached hereto as Exhibit A. My hourly rate for consulting and testimony is \$500 per hour. I have personally overseen the data analyses contained in this report and, if called as a witness, I could and would competently testify thereto.

ASSIGNMENT

2. Resolution Economics was retained in the matter of Baas, et al. v. Dollar Tree stores to provide an analysis of Dollar Tree's employee time-clock records. More specifically, we were asked to assess Plaintiffs' claim that Dollar Tree store managers were regularly engaged in the practice of editing employee time records with the net effect of shortening the duration of the working day and eliminating potential overtime. What follows is a systematic analysis of employee time-clock data that seeks to address these claims and to determine the actual frequency and nature of the alleged practice. Additionally, this report examines whether patterns of managerial edit activity, if present at all, were consistent across Dollar Tree store locations, across different Dollar Tree employees, and whether the experiences of the named Plaintiffs, Baas and Lofquist, were similar to those of other potential class members.

SUMMARY OF FINDINGS

3. Using time clock records from July 2004 through November of 2007, each employee day was classified into one of four categories. Days with no edit activity were placed into one group. Days where manager-initiated edits resulted in a net-reduction to the amount of working time were flagged as net-negative days. Similarly, days where manager-initiated edits resulted in a net-addition to the amount of working time were flagged as net-positive days. Days with negligible edit durations or days where the manager simply filled in a missed employee time clock punch were classified in their own category, independent of the two other edit categories. Based on analyses conducted, we find the following results:

- The overall level of net-negative edit activity by Dollar Tree managers was very low. Of all employee days analyzed, negatively-edited employees days were observed less than 1% of the time.
- Employee days with net-positive edits were far more common than days with net-negative edits, causing the total amount of subtracted time to be substantially offset by the total time added via positive adjustments.
- The level of edit activity was not consistent across all Dollar Tree locations. A good number of the stores in the study had virtually no negatively-edited days at all. Other stores were statistical outliers, however, with abnormally high levels of edit activity when compared to the remaining stores in the population.
- The level of edit activity was not consistent across all Dollar Tree employees during the relevant time period. The majority of employees had no daily records edited in the negative direction. Among employees with such modifications to their daily records, the frequency was generally very low. As in the store-level analysis, a small subset of employees represented statistically significant departures from the rest of the observed group.

- Kossandra Baas, the named Plaintiff, is among the group of statistically-significant outliers. Her level of negatively-edited days places her among the top 5% of all employees working at Dollar Tree during the putative class period. The level of edit activity associated with Ms. Baas' records is also atypical within her own store. When compared to others working in Store #1868, her level of edit activity consistently places her among the top two employees.¹
- During days when net-negative edits were found to have taken place, they were seldom performed to bring the total length of an employee's shift below five or eight hours. Edits revising the total amount of time worked to below either of these two particular thresholds accounted for only a small fraction of the net-negative edit activity.
- Performing a more localized analysis that only includes stores in the district where the named plaintiffs worked does not fundamentally alter the findings from the state-wide analysis.
- Ms. Baas' by-hand analysis of time clock data, though performed on an unrepresentative subset of stores, serves mostly to confirm the general findings of this report – namely, that the frequency of negatively-edited employee days was very low and that the majority of employees had no negative edit activity at all.

¹ Modifications to Kelly Lofquist's daily time clock records are inconclusive with regard to determining her similarity to the rest of the group. Within her own store, she appears to be typical, however, on a class-wide basis her net-negative percentage is above the group average.

OVERVIEW OF THE DATA

4. Resolution Economics was provided with time-clock data from California Dollar Tree stores for the relevant time period. During the putative class period, Dollar Tree utilized two different electronic time keeping systems. The first, Fastech, was in use from the beginning of the period through May of 2006. Afterwards, the company migrated to the Compass system which has remained in use to the current day. The systems are similar in most regards, with the Compass system providing more detail regarding each day's time clock activity. For example, the Compass data displays the name of the manager editing a time entry, while the Fastech system simply denotes that a change was made. The Compass data also clearly indicates the type of punch entered by the employee (i.e. 'Start Shift', 'End Lunch', etc). Further, the Compass system provides edit-related information in the same record as the initial time clock punch, while the Fastech system inserts an additional record to indicate that an edit took place. The downside of the Fastech setup is that, in a few instances, it is not exactly clear which time clock punch record is being modified. However, after a thorough examination of the day-to-day punch activity, it was possible to discern the most common punch-edit patterns and to account for them in the analysis.

5. The Fastech data contain time clock information for 209 unique store locations with records for more than 6,500 employees, constituting nearly 728,000 employee working days. The Compass data include time clock information for 243 unique locations with records for nearly 15,000 employees and more than one million employee working days.

GENERAL METHODOLOGY FOR ANALYSIS OF FASTECH AND COMPASS DATA

6. To analyze the Fastech data, the start of the day was determined by finding the earliest employee-produced punch. During days where no managerial edits occurred, the end of the day was determined by finding the latest employee-produced punch. During days with

managerial edit activity, the manager-created end-time was compared to the employee-generated end-time. If the manager-created end-time was earlier than the employee's punch record, the day was flagged as a 'time subtracted' occurrence and the duration of the edit was documented. A similar procedure was implemented when a managerial edit resulted in the addition of time to the employee's day – the day was flagged and the duration of the addition was recorded.

7. The main exception occurred in instances when the employee clearly forgot to clock out for the day. This situation would appear in the data as follows: the employee's last recorded time punch was shown as 5:25pm and the next (and final) record was displayed as a managerial edit from 5:25pm to 7:00pm. In this case, the manager's edit record does not modify any preceding employee-generated record, but merely extends the length of the working day to the appropriate end-time of the shift. These 'missing punch' days were not included in either the 'time subtracted' or 'time added' categories. Additionally, days with negligible edits (those of only a few seconds in duration) were also excluded from the 'time added' and 'time subtracted' categories.

8. Analysis of the Compass data proceeded in a manner similar to the Fastech analysis. Managerial edits to 'Start Shift', 'End Shift', 'Start Lunch' and 'End Lunch' records were assessed. For each working day, the net value of all edits was totaled to determine whether time was added or subtracted. Days were classified according to the total net value of the edits, or denoted as 'No Edit Activity' in instances where no manager-initiated edits took place.

9. As in the Fastech analysis, it was clear that certain edit activity was simply on account of the employee's failure to clock-out for the day. In these instances, an employee's 'End Shift' record contained a manager-generated end-time, but no employee-generated

information from the time clock. These days were not classified as 'time subtracted' or 'time added', unless other edit activity during the day merited inclusion in a different category. Edits that were only seconds-long in length were also not included in either of the two main categories.

DETAILED FINDINGS

10. In the Fastech data, fewer than 40% of the employee days showed any indication of manager-initiated edit activity, of any type. Among those edited days, the largest share (77%) were either edited in negligible ways or were the result of a 'missed punch' where the employee forgot to clock out at the end of the day.² Only 1.8% of the edited days (0.7% of total employee days) were subject to manager-initiated subtractions. The remaining 21% were instances where time was added to an employee work day. As evidenced by the preceding statistics, incidents of managerial edit activity that resulted in a reduction in employee time worked were very low.

11. The Compass data tell a similar story with regard to manager-initiated edit activity. Less than one third of the employee days were subject to any modification at all. More than 90% of the edit activity was comprised of negligible edits or 'missed punch' edits where the employee forgot to clock out for the day or failed to clock back in when returning from a lunch break, etc. 1.4% of the edits had the net effect of reducing the overall length of the work day, while 3.3% of the edits had the effect of increasing the length of the workday. Thus, we again observe the pattern of very low frequency of edits to reduce time worked and a higher number of edits to increase time worked.

² A 'negligible' edit day was defined as a day having less than 60 seconds being added or subtracted to the total length of the work day.

12. Taken together, the two data sources appear to validate each other by showing levels of edit activity that are remarkably similar and stable over time. All told, both data sources suggest that meaningful net-negative subtractions to time worked occurred for less than one in every one hundred days worked by Dollar Tree employees. An overview of these day-by-day results can be found in Table 1.

STORE LEVEL ANALYSES³

13. In addition to calculating the average frequency of net-negative days across all records in the available data, we also computed the frequency of negatively-edited days within each Dollar Tree location. These results show considerable levels of variability across the universe of analyzed stores. According to the Fastech data, 28 stores had fewer than five employee days with net-negative edits. While the median percentage of negatively-edited days for all stores was 0.5%, some stores deviated from this amount considerably. The store with the greatest level of net-negative edit activity had 4.5% of its days edited. Stores in the 95th percentile had 2.7% negatively-edited days, while stores in the 25th percentile had 0.2% of days showing net-negative edits. A detailed overview of the distribution of store-level edit activity can be found in Table 2.

14. The Compass data reveal a similar pattern: 21 stores had no negatively-edited days, with many others having near-negligible levels of such activity. The maximum level of net-negative activity was 9.1%. Stores in the 95th percentile had 1.8% of their working days edited in this fashion, while stores in the 25th percentile had net-negative percentages of 0.1%.

³ For the store-level analyses, stores with less than 50 total employee days were dropped. With fewer than 50 employee days, aggregate-level parameter estimates such as the mean and median can be unreliable.

15. In an additional analysis, the net value of all daily edits for each store was computed. Based on the Fastech data, the total value of the positive edits exceeds the total value of the negative edits in every store. This is not surprising, given that positively-edited days were much more common than negatively-edited days. In the Compass data only ten percent of the stores had total negative edits that exceeded the value of the positive edits. However, in each of these instances, the negative edit activity exceeded the positive edit activity by very small amounts. The net value of the edits for each store can be found in Charts 1 and 2.⁴

16. The considerable amount of observed inter-store variability suggests that the level of net-negative edit activity experienced by any given employee was highly dependent on the store where he/she worked. It is clear that some employees worked in stores that had above-average levels of edit activity, while others worked in stores that had no net-negative edits at all. On average, the level of edit activity was extremely low in any given store.

EMPLOYEE-LEVEL ANALYSES⁵

17. The frequency of negatively-edited days was also calculated on a per-employee basis. Much like the store-level analyses, the employee-level distribution shows considerable variability, centered on a very small mean and median. In the Fastech data, the employee-level median was zero and the mean was 0.6%. This is not surprising when considering that 65% of employees had no net-negative edited days whatsoever. It is not until reaching the 80th percentile that the frequency of negatively-edited employee days even exceeds 1%. The

⁴ Three employees from Store #1223 were excluded from the analysis because of their consistently abnormal clocking activity. These three employees, during nearly all of their working days, clocked in several hours late. Manager adjustments were made to correct this abnormal activity. However, including these three employees, adds nearly 1,000 hours to Store #1223's total.

⁵ For the employee-level analyses, employees with less than 21 working days were dropped. With less than 21 working days, aggregate-level parameter estimates such as the mean and median can be unreliable.

typical employee in the 95th percentile had an average of 3.3% of his days edited and the most-highly edited employee was recorded at 22%, which is clearly an anomaly relative to other employees. An overview of the employee-level distribution can be found in Table 3.

18. The Compass data tells a similar story. In the Compass data, the median was also zero with a mean value of 0.4% net-negative days. Much like the Fastech data, 70% of employees were deemed not to have a single instance of net-negative edit activity. It is not until the 86th percentile that the frequency of negatively-edited days begins to exceed 1%. Even at the level of the 95th percentile, the frequency of net-negative edits is as low as 2.5%. The maximum case, recorded at 44% of days edited, represents employee Jaime Knight who only worked 25 days. Thus, his relatively high percentage of edited days is likely an artifact of small sample size.

19. These two analyses provide clear evidence that not all employees had similar experiences regarding manager-initiated time clock edits. If there is a 'most common' experience to be found in the data, it is quite clearly the experience of having no days negatively-edited at all. However, among those whose records were edited in the negative direction, we observe rather large fluctuations that are more likely the product of employee-specific clocking patterns than the result of a company-wide policy that encourages time 'shaving'.

NAMED PLAINTIFF ANALYSIS

20. Charts 3 and 4 show the company-wide distribution of net-negative edits to employee days according to the Fastech and Compass data sets. As seen in both charts, most employees cluster in the first bin labeled 0-1%. That is, the vast majority of employees had less than 1% of their daily records edited in the negative direction, with a good portion experiencing no net-negative edit activity at all. The 'tail' of each distribution stretches out

to either 14 or 16 percent depending on the data source, but in both cases it is clear to see that these 'tails' include a very small subset of the employees.

21. It is worth noting that in both instances the tail of the distribution includes Kossandra Baas. In the Fastech data chart, Ms. Baas is at the top end of the distribution, residing in the bin with employees who had more than 14% of their days edited in the negative direction. In the Compass data chart, Ms. Baas resides in the 5-6% bin, meaning that her frequency of net-negative edits was nearly fifteen times that of the average employee in the group. Both data sources indicate that Ms. Baas is at or above the 95th percentile, thus making her a statistically significant outlier relative to the population of all employees. From these findings it is clear that Ms. Baas' experience with regard to manager-initiated net-negative edits was atypical and highly dissimilar to the experiences of other employees.

22. The next set of analyses compares Ms. Baas to other employees in Store #1868, the store where she most commonly worked. As seen in Charts 5 and 6, Ms. Baas is an outlier even among those working with similar store conditions and under the supervision of identical store managers. According to the Fastech data, Baas' frequency of net-negative edits ranks number 2 among 37 other employees. The only employee to have more edits than Ms. Baas was Kay Cain, who had the highest net-negative edit frequency in the entire Fastech data set. The Compass data show that Ms. Baas is the most-negatively-edited employee among all others in her store, ranking number 1 out of more than 40 employees. Her negative edit percentage is nearly five times the store average.

23. Results for the other named plaintiff, Kelly Lofquist, are somewhat inconclusive. While her net-negative average is above the company-wide average, her within-store negative edit percentage is not above average in a statistically significant way (though her average is statistically above the group's median value). For the within-store analysis, the

most that can be said about Ms. Lofquist is that she ranks 11th out of 42 employees, a position that places her in the top 25% among employees in her store.⁶

24. These results clearly indicate that Ms. Baas' experience was significantly different from employees in both the State of California as well as those working in her own store. Ms. Lofquist seems to be less atypical within store #1868, but exceeds the class-wide employee-level average in a statistically meaningful way.

ANALYSIS OF FIVE AND EIGHT HOUR THRESHOLDS

25. Having assessed the frequency of net-negative edits, we now turn to examining the nature of those daily edits—namely, how frequently edits were made that reduced the total length of the working day to less than five or eight hours. Thus, we are examining in detail the 0.7% of the records in Fastech and 0.4% of the records in Compass where we observe manager edits which reduce employee time worked. According to the time clock data, it appears that edits that reduced time worked to 8 or 5 hours were infrequent. The Fastech data indicate that fewer than 18% of the net-negative edits caused an eight-plus hour day to become a day of eight or less hours in duration. Put another way, 0.12% of the total employee days were adjusted to less than eight hours. Similarly, of the already small fraction of negatively edited days, only 12% resulted in a five-plus hour day becoming five or less hours. Results from the Compass data were very similar, with 20% in the eight-hours-plus days being edited to less than eight hours and 7% in the five-hours-plus days being edited to less than five hours. This finding indicates that when a manager made a net-negative edit, 70% of the time the purpose of the edit was simply to deduct time from the total length of the shift without fundamentally altering the nature of the working day. In other words, it does not appear that edits were routinely performed to eliminate overtime hours or to render the

⁶ Available data for Kelly Lofquist is limited to the Compass data set. No records for Ms. Lofquist were found in the Fastech data.

employee ineligible for a meal break during that day.

WITHIN-DISTRICT ANALYSIS

26. An analysis of stores within Kossandra Baas' and Kelly Lofquist's home district reveals negligible differences between these stores and other stores in the state of California. To perform this analysis, two samples were created. The first sample, Store Group 1, contained employee days from stores 1242, 1561, 1845, 1868, 1878, 1945, 1990, 2162, 2168, 2262, 2939, and 3370.⁷ The second sample, Store Group 1A, was a subset of the first group containing employee records from stores 1561, 1868, 1878, 1990, 2168, and 2262, 2939. According to the Fastech data, the percentage of negatively-edited days for Store Group 1 was 0.5% (compared to the state-wide figure of 0.7%). The percentage of negatively-edited days for the Store Group 1A was 0.7%, identical to the state-wide proportion. The Compass data is consistent with these findings: the percentage of negatively-edited days was 0.7% and 0.6% in Store Group 1 and Store Group 1A, respectively. This is compared with the state-wide average of 0.4%.

27. At the store- and employee-levels, the results are consistent with the broader, state-wide analyses. In both samples, the median proportions of negatively-edited days were 0.5% and 0.2% in Fastech and Compass, respectively. In both data sets the median values for the employee-level analyses were 0.0% for Store Group 1 and Store Group 1A employees. Tables 4 and 5 show the levels of dispersion around these median values. The percentage of negative edits at the store-level has a maximum value of 2.8% in the Store Group 1 and 1.5% among Store Group 1A. In the employee-level analysis, the maximum observed proportion of negatively-edited days was 22% in Fastech (for both Store Groups)

⁷ It is my understanding that this group of stores includes all stores in the same district as the named plaintiffs' store.

and 16.4% or 9.5% in Compass depending on which Store Group definition is used.

28. As evidenced by the preceding analysis, the overall level of net-negative edit activity within Baas' and Lofquist's home district was very low and was not different in any meaningful way from stores in the rest of the state. There are, as in the state-wide analysis, 'outlier' employees who are not representative of the group-at-large. Among those outlier employees is Kossandra Baas, whose individual level of edit activity was nearly ten times higher than the average employee in her district. Ms. Lofquist's level of edit activity is also above average.

29. The data also show that eight-hours-plus days were not routinely modified to less than eight hours in either Store Group. By contrast, this analysis shows that only 0.1% of the total employee days followed this pattern of edit activity in both the Fastech and Compass data sets. Instances where five-hours-plus days were reduced to less than five hours account for less than 0.1% of the employee days.

RESPONSE TO THE DECLARATION OF KOSSANDRA BAAS

30. Exhibit C in Kossandra Baas' declaration provides a list of instances where, based on her review of the time clock records, she identified that negative edits took place. Table 6 compares the number of negatively-edited days that Ms. Baas identified by-hand to the total number of days worked by each employee. It is clear from Table 6 that the negatively-edited days that Ms. Baas' identified represent only a small fraction of the total number of days worked by each employee. For instance, Ms. Baas identified Employee #2501250 as having six days where 'time shaving' may have occurred. However, Employee #2501250 worked 301 total days in the Compass Data set. When compared to all the days the employee worked, these six edited days account for less than 2% of this employee's total working days. Further, it should be noted that this particular employee has an above average

number of days with edit activity. In contrast, employee #2520220 had only two entries in Ms. Baas' Exhibit C, which comprise less than 0.5% of the 391 total days worked by this employee.

31. It is also important to note that Ms. Baas' by-hand analysis identifies negative edits for only 56 employees. According to the Compass data, however, there were nearly 130 active employees working in stores 1868, 2168, and 2262.⁸ Ms. Baas only identified edits for 44% of employees and ignored the remaining 56% of employees who had no edits at all. Finally, it must be acknowledged that Ms. Baas' person-by-person tallies are based on only three stores, two of which have already been shown to have above-average levels of edit activity. According to the Compass data, Store 1868 has nearly five times as much edit activity as the typical store in its district. Store 2262 is even more atypical. The within-store average is 1.5%, which is more than seven times the typical store in the district.

32. Even though Ms. Baas' by-hand calculations are based on an atypical subset of stores, they still confirm the findings from the larger-scale analysis provided in this report. Her analysis shows, first and foremost, that the most common experience among her subset of analyzed employees was to have no negatively-edited daily records at all – that is, the majority of employees do not even appear in Ms. Baas' Exhibit C. Among those with edit activity, the proportion of negatively-edited days comprised only a very small fraction of the total days worked. In many instances the per-employee rate of occurrence was less than 1%.

CONCLUSION

33. Based on analysis of Dollar Tree employee time clock records, we find the overall level of net-negative edits to be almost negligible. Negative edits were observed for

⁸ Based on Exhibit D in Ms. Baas' declaration, it appears that these three stores were the focus of her analysis. The 130 employee count represents the total number of unique employees in these three stores with 21+ working days.

less than one percent of the employee days. Furthermore, this edit activity was not consistent across stores, with some stores experiencing almost no net-negative edits while other 'outlier' stores stand as clear exceptions to the general trend. Moving to an employee-level analysis only accentuates the high level of variability found in the data. More importantly, perhaps, it highlights the fact that the most common experience—experienced by 70% of employees—was to have no net-negative activity whatsoever. There are, of course, exceptions to this general rule and among those exceptions is the named Plaintiff, Kossandra Baas. Ms. Baas' experience sets her apart considerably not only from employees in the company at-large, but also from employees in her own store who worked in the same environment with the same set of managers.

34. The results of these state-wide analyses hold up even when assessing the frequency of time clock edit activity at the district-level. In these more-localized analyses, the proportion of negatively-edited days remains very low and Kossandra Baas continues to represent a statistically significant outlier when compared to the group average.

35. Ms. Baas' by-hand analysis of the time clock data in three Dollar Tree stores serves to confirm the results of our larger-scale study presented here. Ms. Baas' analysis finds that the majority of employees had no negative edits to their daily records. Her analysis also shows that among those with negatively-edited records, the negative days represent a very small fraction of the total number of working days.



Robert W. Crandall, MBA

Baas v. Dollar Tree Stores

TABLE 1
Overview of Time Clock Edit Activity
- Includes All Employee Days -

	Fastech Data		Compass Data	
	% of Total Employee Days	% of Edited Employee Days	% of Total Employee Days	% of Edited Employee Days
Unedited Days	61.3%	--	70.3%	--
Negligible/Missed Punch Edit Days	29.6%	76.5%	28.3%	95.3%
Time Subtracted Days	0.7%	1.8%	0.4%	1.4%
Time Added Days	8.4%	21.7%	1.0%	3.3%

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TABLE 2
Percentage of Negatively-Edited Days
- By Store -

Data Source	Number of Stores	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	209	0.7%	0.5%	0.1%	0.2%	0.9%	2.7%	0.0%	4.5%
COMPASS	243	0.5%	0.2%	0.0%	0.1%	0.5%	1.7%	0.0%	8.9%

NOTE: Stores with less than 50 working days were excluded from this analysis.

Baas v. Dollar Tree Stores

TABLE 3
Percentage of Negatively-Edited Days
- By Employee -

Data Source	Number of Employees	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	4839	0.7%	0.0%	0.0%	0.0%	0.6%	3.6%	0.0%	22.0%
COMPASS	8763	0.4%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%	44.0%

NOTE: Employees working less than 21 days were excluded from this analysis.

Baas v. Dollar Tree Stores

TABLE 4
Percentage of Negatively-Edited Days
- Stores 1242, 1561, 1845, 1868, 1878, 1945, 1990, 2162, 2168, 2262, 2939, 3770-

- BY STORE -

Data Source	Number of Stores	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	11	0.4%	0.5%	0.1%	0.1%	0.7%	1.5%	0.1%	1.5%
COMPASS	12	0.6%	0.2%	0.0%	0.1%	0.8%	2.8%	0.0%	2.8%

- BY EMPLOYEE -

Data Source	Number of Employees	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	289	0.6%	0.0%	0.0%	0.0%	0.5%	2.6%	0.0%	22.0%
COMPASS	457	0.6%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	16.4%

NOTE: Employees working less than 21 days were excluded from this analysis.

Baas v. Dollar Tree Stores

TABLE 5
Percentage of Negatively-Edited Days
- Stores 1561, 1868, 1878, 1990, 2168, 2262 and 2939 -

- BY STORE -

Data Source	Number of Stores	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	7	0.5%	0.5%	0.1%	0.1%	0.7%	1.5%	0.1%	1.5%
COMPASS	7	0.5%	0.2%	0.0%	0.1%	1.1%	1.5%	0.0%	1.5%

- BY EMPLOYEE -

Data Source	Number of Employees	Percentage of Net-Negative Edited Days							
		Mean	Median	5th Percentile	25th Percentile	75th Percentile	95th Percentile	Minimum	Maximum
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
FASTECH	178	0.7%	0.0%	0.0%	0.0%	0.4%	2.8%	0.0%	22.0%
COMPASS	292	0.5%	0.0%	0.0%	0.0%	0.1%	2.9%	0.0%	9.5%

NOTE: Employees working less than 21 days were excluded from this analysis.

Baas v. Dollar Tree Stores

Table 6
Percentage of Negatively-Edited Days
-Based on Analysis Performed by Kossandra Baas-

Employee ID	Number of Negatively Edited Days (Provided by Ms. Baas)	Employee's Total Number of Working Days	Percentage of Negatively-Edited Days
2281228	3	153	2.0%
2286124	2	399	0.5%
2296096	0	374	0.0%
2299148	0	35	0.0%
2304607	2	294	0.7%
2309681	0	78	0.0%
2311359	1	144	0.7%
2328531	0	37	0.0%
2329343	13	443	2.9%
2333519	1	47	2.1%
2366652	0	95	0.0%
2371010	2	172	1.2%
2371841	0	406	0.0%
2372410	0	38	0.0%
2373184	1	33	3.0%
2384833	0	77	0.0%
2412302	0	161	0.0%
2434139	9	385	2.3%
2437857	0	126	0.0%
2444676	1	145	0.7%
2450442	0	46	0.0%
2453879	8	381	2.1%
2456491	0	140	0.0%
2456620	16	375	4.3%
2466152	1	47	2.1%
2466245	0	149	0.0%
2466611	3	349	0.9%
2473206	0	98	0.0%
2473650	4	177	2.3%
2473667	3	236	1.3%
2486341	0	100	0.0%
2488148	0	26	0.0%
BAAS	9	163	5.5%
2493762	0	50	0.0%
2499126	2	151	1.3%

Baas v. Dollar Tree Stores

Table 6
Percentage of Negatively-Edited Days
-Based on Analysis Performed by Kossandra Baas-

Employee ID	Number of Negatively Edited Days (Provided by Ms. Baas)	Employee's Total Number of Working Days	Percentage of Negatively-Edited Days
2501250	6	301	2.0%
2502097	0	75	0.0%
2507386	2	79	2.5%
2509401	0	70	0.0%
2509937	1	113	0.9%
2514091	0	24	0.0%
2514383	0	23	0.0%
2517417	0	25	0.0%
2520220	2	391	0.5%
2520222	1	305	0.3%
2521318	0	26	0.0%
2521900	0	229	0.0%
2523691	3	375	0.8%
2523709	0	43	0.0%
2524310	0	43	0.0%
2524330	2	178	1.1%
2524337	0	53	0.0%
2525654	0	52	0.0%
2525778	1	73	1.4%
2526740	0	45	0.0%
2528331	3	94	3.2%
2533382	0	369	0.0%
2533979	0	41	0.0%
2534053	0	298	0.0%
2534057	1	339	0.3%
2534113	0	26	0.0%
2536347	3	282	1.1%
2541668	0	25	0.0%
2541675	0	111	0.0%
2543989	0	27	0.0%
2544067	1	32	3.1%
LOFQUIST	4	132	3.0%
2547332	0	23	0.0%
2551253	0	26	0.0%
2552231	0	293	0.0%

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Table 6
Percentage of Negatively-Edited Days
-Based on Analysis Performed by Kossandra Baas-

Employee ID	Number of Negatively Edited Days (Provided by Ms. Baas)	Employee's Total Number of Working Days	Percentage of Negatively-Edited Days
2552485	2	65	3.1%
2553146	2	59	3.4%
2553712	0	258	0.0%
2554414	0	25	0.0%
2556007	0	95	0.0%
2557330	0	46	0.0%
2557812	1	131	0.8%
2560191	0	24	0.0%
2561027	0	75	0.0%
2561366	2	273	0.7%
2562270	8	275	2.9%
2564201	0	169	0.0%
2567877	5	182	2.7%
2567965	0	52	0.0%
2567982	1	118	0.8%
2573563	0	22	0.0%
2573760	0	33	0.0%
2575430	0	26	0.0%
2579026	0	210	0.0%
2579036	0	65	0.0%
2585540	0	25	0.0%
2585548	0	27	0.0%
2587682	5	140	3.6%
2589883	0	47	0.0%
2590806	0	70	0.0%
2590807	3	148	2.0%
2591786	2	201	1.0%
2591791	0	22	0.0%
2593552	1	102	1.0%
2599413	2	63	3.2%
2600060	0	51	0.0%
2601102	0	36	0.0%
2601152	4	162	2.5%
2602227	0	24	0.0%
2604364	1	25	4.0%

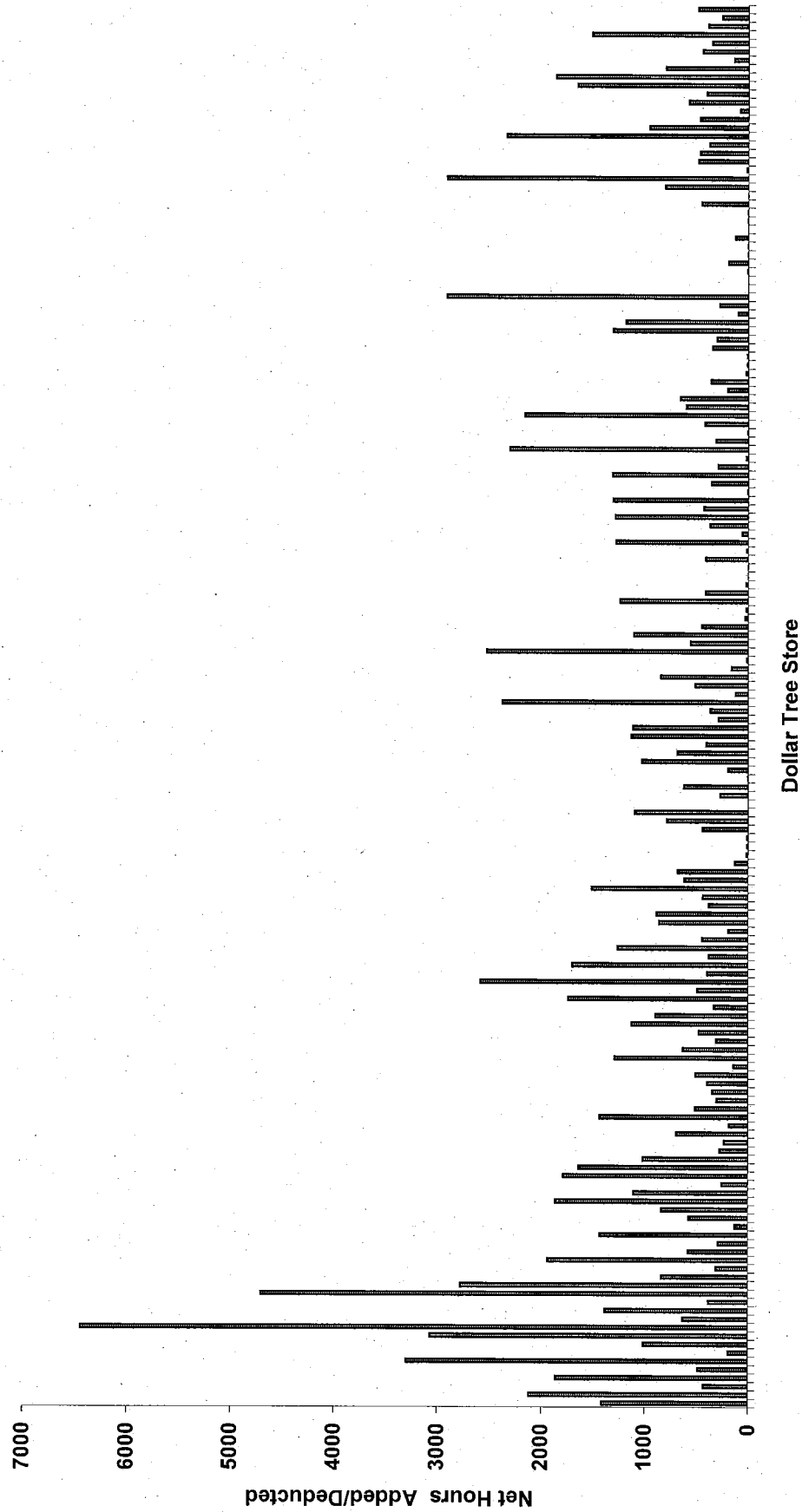
Baas v. Dollar Tree Stores

Table 6
Percentage of Negatively-Edited Days
-Based on Analysis Performed by Kossandra Baas-

Employee ID	Number of Negatively Edited Days (Provided by Ms. Baas)	Employee's Total Number of Working Days	Percentage of Negatively-Edited Days
2606811	3	73	4.1%
2610500	0	65	0.0%
2614555	0	25	0.0%
2614559	0	69	0.0%
2615198	0	105	0.0%
2615423	1	72	1.4%
2616209	0	40	0.0%
2617661	0	82	0.0%
2618220	0	25	0.0%
2620593	0	27	0.0%
2626328	0	50	0.0%
2629132	0	59	0.0%
2632790	0	54	0.0%
2632983	0	28	0.0%
2635843	0	39	0.0%
2635853	0	40	0.0%
2635992	0	47	0.0%
2636004	0	51	0.0%
2640002	0	22	0.0%
2640628	0	27	0.0%
2643339	0	28	0.0%
OVERALL	154	15145	1.0%

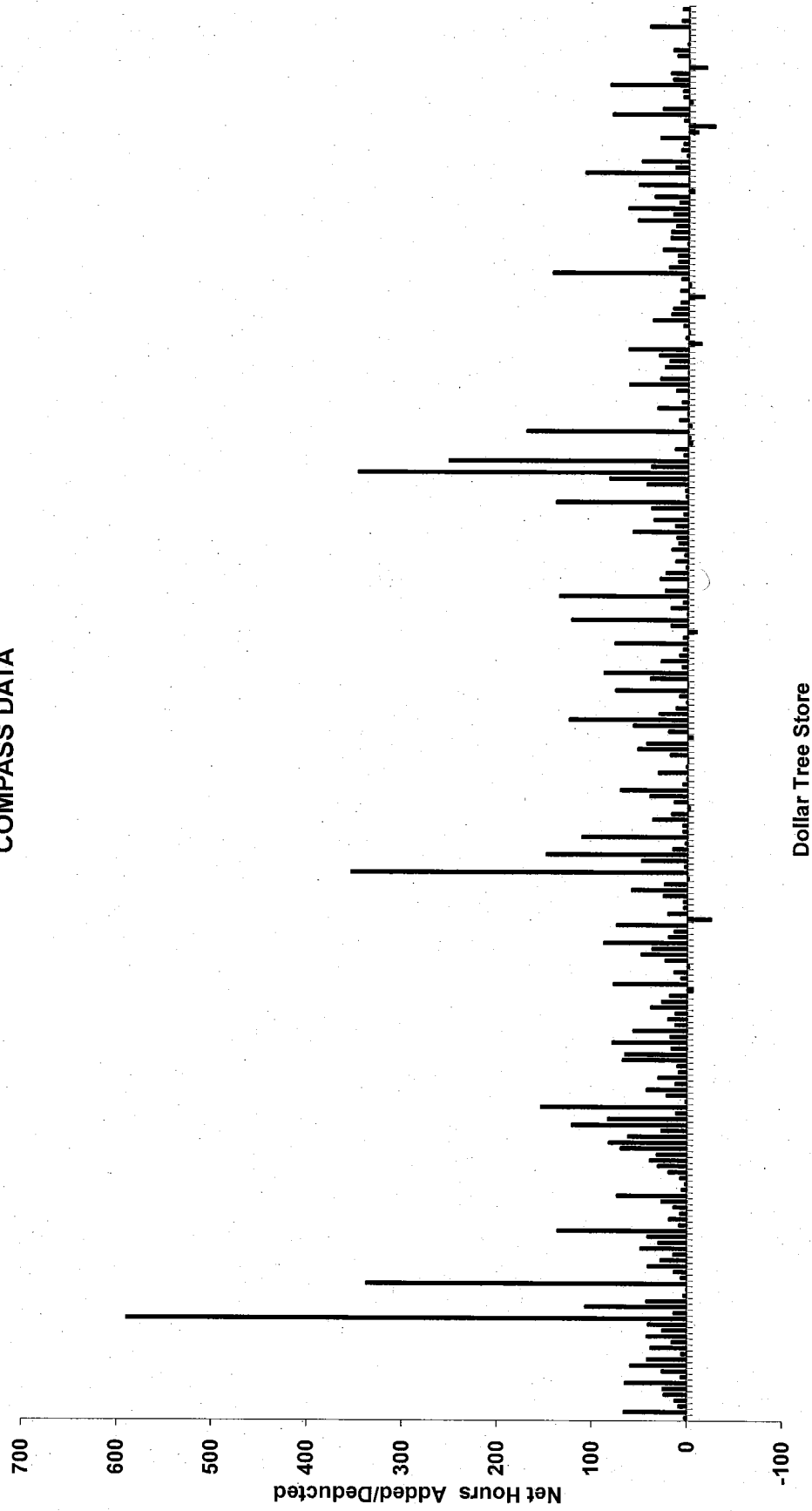
Baas v. Dollar Tree Stores

CHART 1
Net Change in Total Employee Hours Due to Manager Edits
By Store
FASTECH DATA



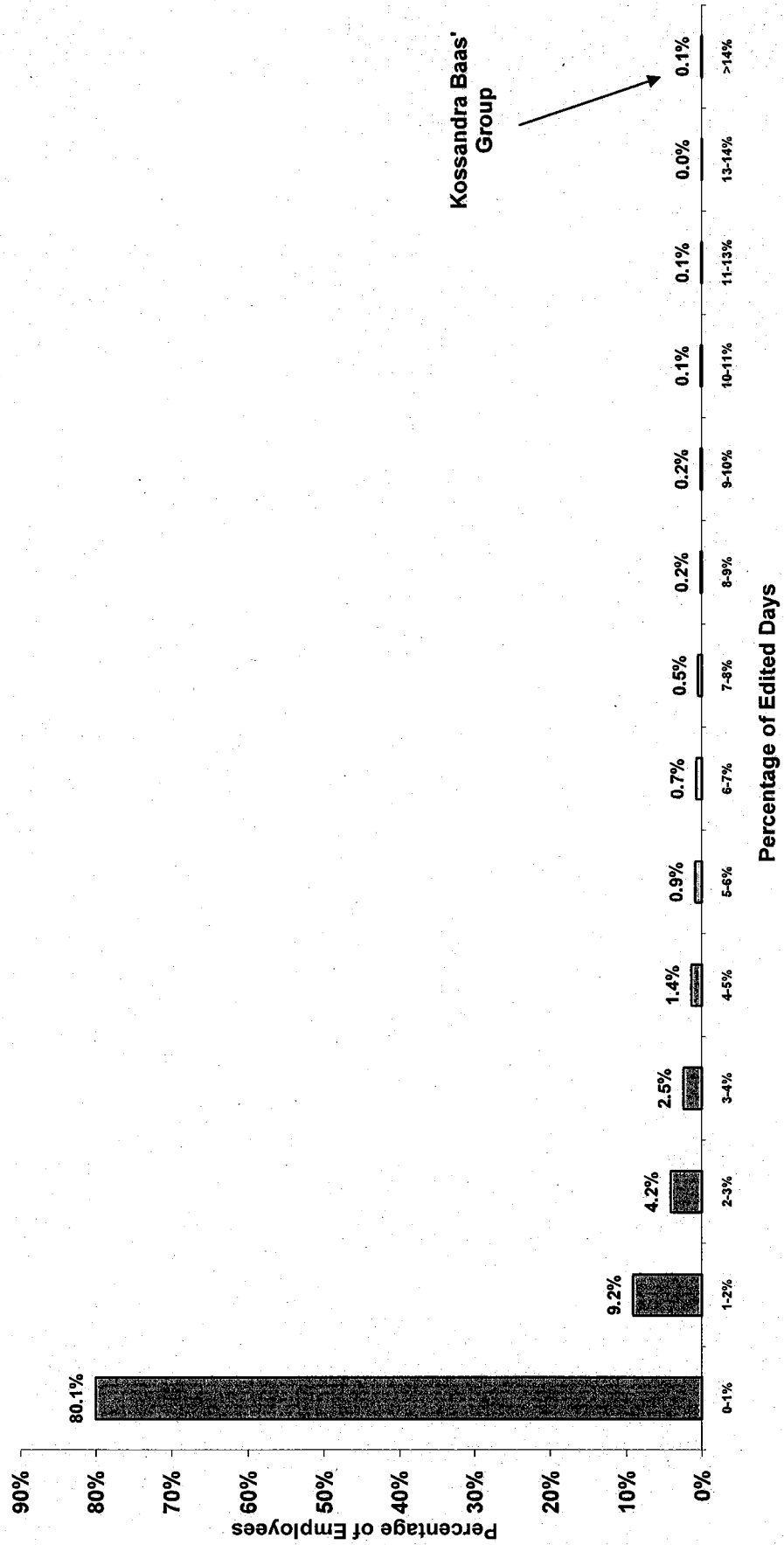
Baas v. Dollar Tree Stores

CHART 2
Net Change in Total Employee Hours Due to Manager Edits
By Store
COMPASS DATA



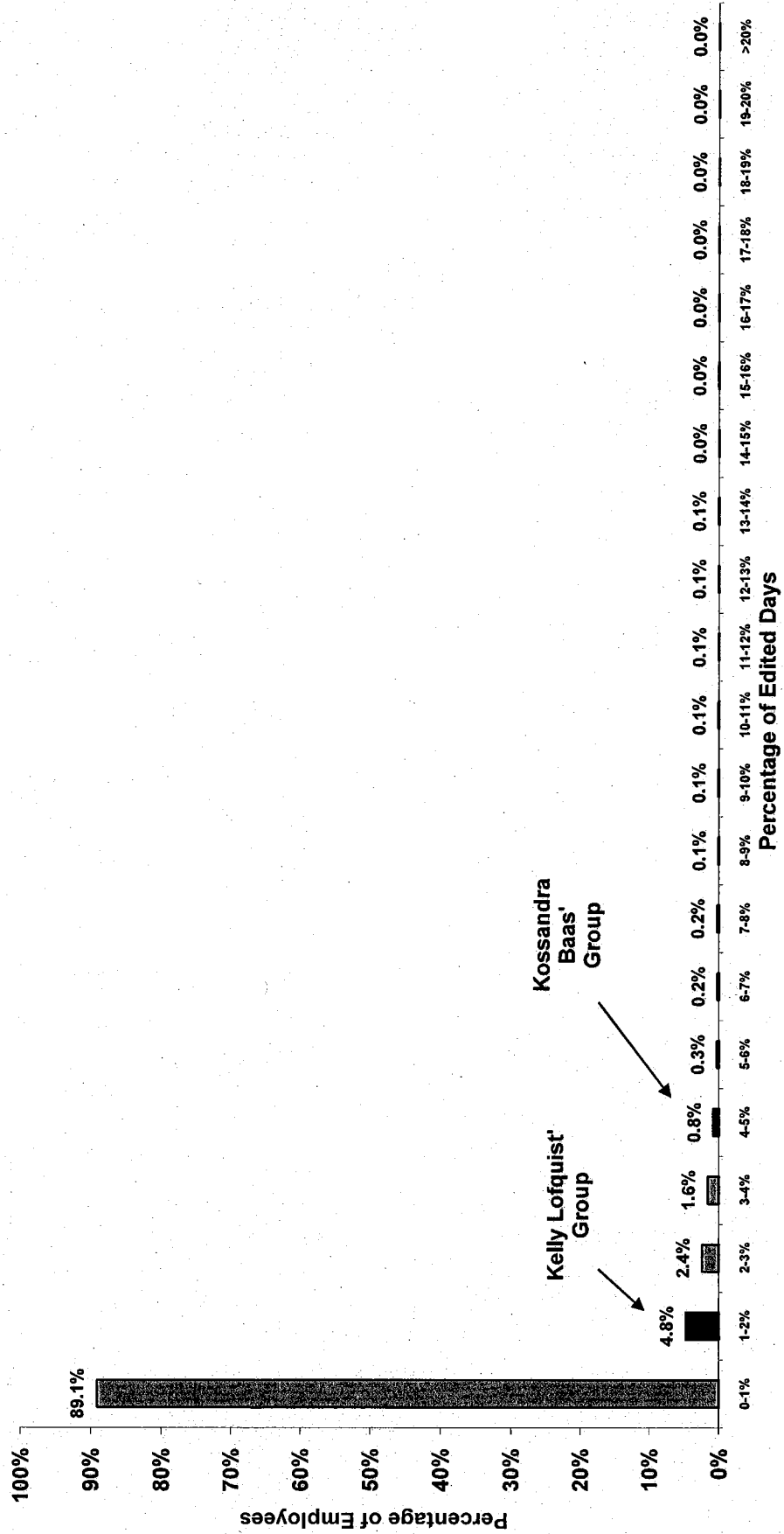
Baas v. Dollar Tree Stores

CHART 3
Percentage of Negatively-Edited Days
Employee-Level Distribution
FASTECH DATA



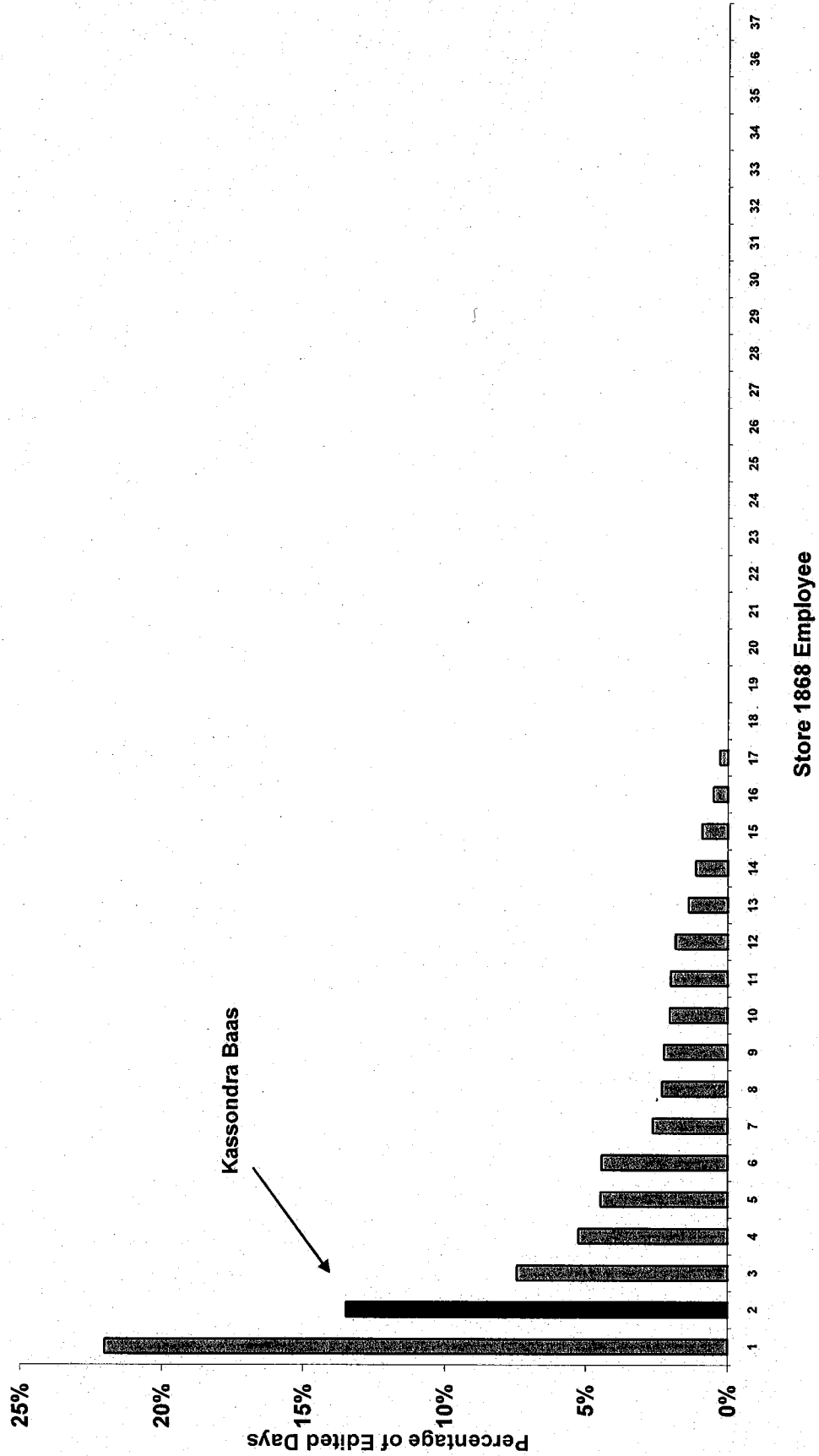
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CHART 4
Percentage of Negatively-Edited Days
Employee-Level Distribution
COMPASS DATA



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CHART 5
Percentage of Negatively-Edited Days
For Each Employee in Store #1868
FASTECH DATA



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CHART 6
Percentage of Negatively-Edited Days
For Each Employee in Store #1868
COMPASS DATA

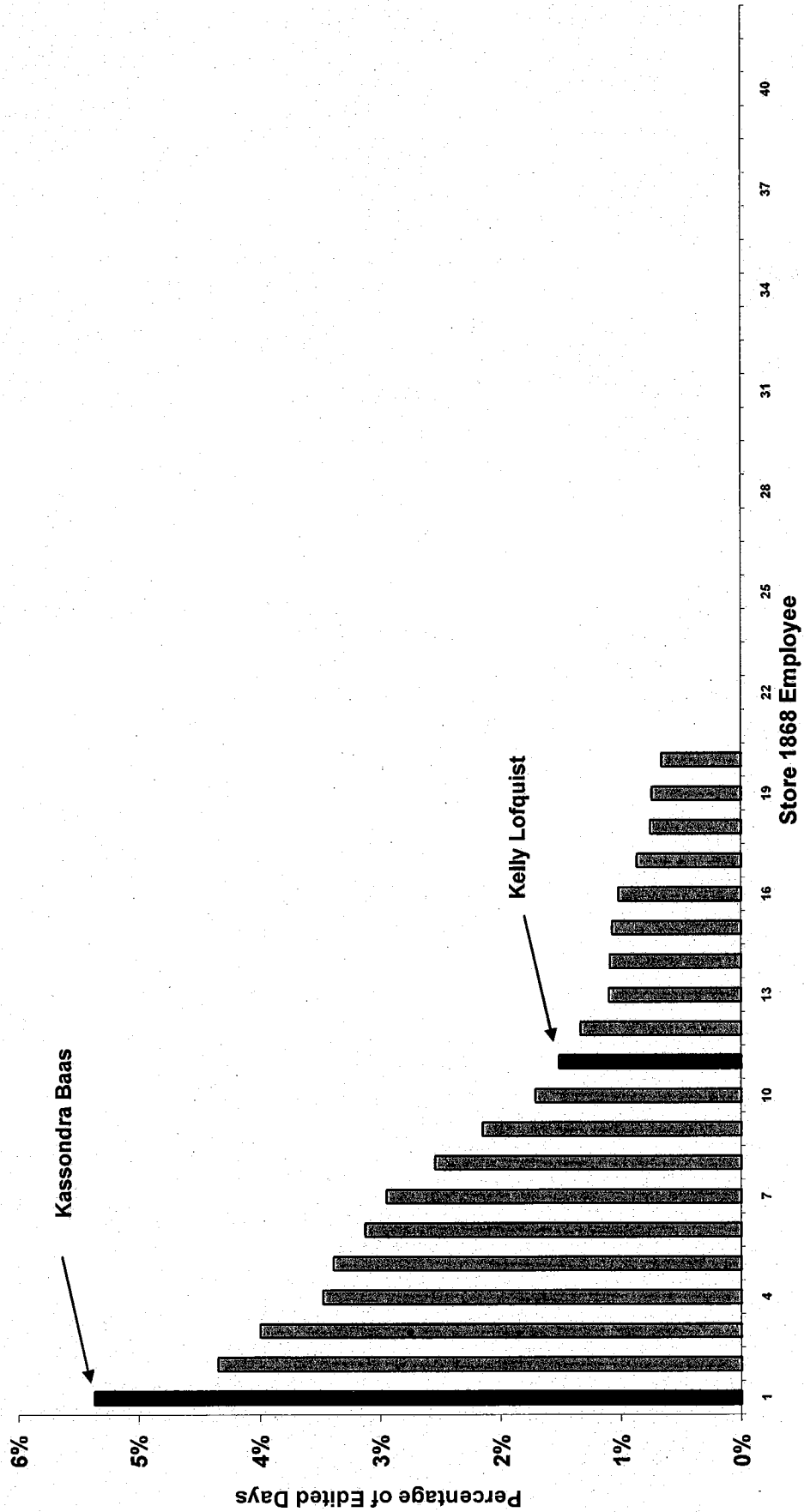


EXHIBIT B

Robert W. Crandall, M.B.A.
Partner

SUMMARY

Robert W. Crandall is a Partner in the litigation consulting practice of Resolution Economics LLC. He has a M.B.A. from Loyola Marymount University and a B.A. in History from the University of Southern California. Prior to the formation of Resolution Economics, Mr. Crandall was with the Dispute Consulting Group at Deloitte & Touche, the Economics & Litigation Services Group at Altschuler, Melvoin & Glasser, and the Dispute Analysis & Corporate Recovery Group at Price Waterhouse.

Mr. Crandall provides consulting services and expert witness testimony related to a variety practice areas. He has provided expert testimony in deposition, trial, arbitration, and other forums. He specializes in estimating damages, evaluating business issues and business operations, designing and conducting observation studies and surveys related to work activities, assessing economic and statistical approaches to litigation issues, and performing forensic programming and analysis of large complex databases. Mr. Crandall also has significant experience in analyzing complex data for the purpose assisting counsel in evaluating class certification, liability and developing damages estimates for alternative dispute resolution forums such mediation, settlement conferences, and arbitration.

PROFESSIONAL EXPERIENCE

Mr. Crandall has considerable experience in providing economic and/or statistical analyses related to employment litigation matters. Also, he performs general damages analysis, forensic accounting, business valuations, and statistical analysis in a broad range of matters where the underlying issues are: breach of contract, antitrust, intellectual property, environmental claims, and insurance coverage. In addition, Mr. Crandall has considerable expertise in financial modeling, creating large databases from paper records and diverse data sources, designing, implementing, and analyzing surveys, and conducting statistical analysis related to complex data intensive litigation assignments. Finally, Mr. Crandall is experienced in analyzing job duties and content and business operations.

EMPLOYMENT DISCRIMINATION LIABILITY ANALYSIS

Mr. Crandall has performed numerous statistical analysis of liability related to class action, multi-plaintiff, and single plaintiff claims of employment discrimination. He is experienced analyzing claims alleging discrimination in hiring, promotion, placement, termination, discipline, and pay equity. Assignments representative of Mr. Crandall's experience in employment discrimination include the following:

- Provided consulting services to defense counsel in a class action matter alleging racial discrimination in the officer disciplinary process at a very large police department. Services included statistical analysis data to test plaintiffs' allegations and work related to rebutting analysis proffered by plaintiffs' expert.

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- Provided consulting services to defense counsel in a class action matter, brought by the EEOC, alleging discrimination in recruiting, hiring and placement at a hotel. Created an applicant database, and performed SAS programming and statistical analysis related all three issues. Analyzed opposing expert analysis and assisted counsel in developing cross-examination.
- Provided consulting services to defense counsel in a class-action matter brought by the EEOC alleging age discrimination in terminations at a major law firm. Services included building analytical databases from multiple sources of information, performing statistical analysis related to the discrimination claim, estimating economic exposure for mediation/ settlement discussions.
- Provided consulting services to defense counsel in multi-plaintiff action alleging age discrimination at a major clothing retailer. Services included researching external labor market characteristics for individuals with the plaintiff's occupation. Created financial models to calculate damages under a variety of offset scenarios.
- Provided consulting services to defense counsel in multi-plaintiff action alleging racial discrimination in work assignments at a government agency. Services included performing statistical analysis to determine if minority workers received a disproportionate share of unfavorable work assignments.
- Provided consulting services to defense counsel in a multi-plaintiff action alleging gender discrimination in promotions at a large city police department. Services included performing statistical analysis of promotions and placements into coveted positions.
- Provided consulting services to defense counsel in multi-plaintiff action alleging age discrimination following a reduction of force at a hospital. Services included performing statistical analysis of liability and critiquing the analyses proffered by plaintiffs' expert.
- Provided consulting services to defense counsel in a large national class action employment dispute alleging gender discrimination at a warehouse style home and garden center retailer. Performed SAS programming and statistical analyses related to hiring, initial placement, and initial pay of applicants. Performed statistical analyses of female availability in the external labor market. Provided deposition support to counsel including drafting questions for the deposition of the opposing expert witness.
- Provided consulting services to defense counsel in a class action employment matter brought by the EEOC. Constructed a damage model that placed minority applicants in jobs awarded to White employees through analysis of the difference between actual and expected hires based on various flexible assumptions. Developed a random placement model testing both minority and non-minority placements. After placing the minority applicants at an appropriate rate during the damages period, the model calculated the damages of the applicants based on the time of their placement and other labor market factors.
- Provided consulting services to defense counsel in a single plaintiff action alleging age discrimination by a large international food company. Performed SAS programming and statistical analysis of terminations. Analyzed the work product of opposing expert. Assisted in drafting questions for use at deposition.

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- Provided consulting services to defense counsel in a class action matter alleging age discrimination at a major drug store chain. Performed statistical analysis related to terminations of store managers and assistant managers, reviewed and critiqued analysis of opposing experts.
- Provided consulting services to defense counsel in a single plaintiff matter alleging age discrimination in terminations resulting from a reduction in force. Services included performing statistical analysis of termination claims.
- Provided consulting services to defense counsel in a multi-plaintiff matter alleging national origin discrimination at a waste management company. Performed statistical analyses to test plaintiffs' claims. Developed external labor market benchmarks.
- Provided consulting services to outside counsel in connection to performing statistical analysis of proposed workforce reductions at a publishing company. Tested various reductions in force scenarios for statistical significance. Assisted counsel in creating a RIF plan that avoided adverse impact on protected classes.
- Provided consulting services to outside counsel in connection to performing statistical analysis of proposed workforce reductions at a medical supply manufacturing company. Tested various reductions in force scenarios for statistical significance. Assisted counsel in creating a RIF plan that avoided adverse impact on protected classes.
- Provided consulting services to defense counsel in a wrongful termination matter alleging racial discrimination at a major defense contractor. Examined workforce composition in response to allegations of systematic discrimination based on race. Analyzed external labor market availability to determine minority representation in the industry by job classification. Created a visual representation of results to be used as exhibits in trial. Calculated loss of earnings related to the termination. Drafted cross-examination questions for the examination of plaintiff's expert.

WAGE AND HOURS CLAIMS

Mr. Crandall has been involved in more than seventy-five class action wage and hour matters. He is highly experienced in analyzing liability, damages, and class-member commonality related to wage and hour claims. He is experienced in designing, implementing, and analyzing surveys and time-in-motion studies and performing forensic data analysis related to job content, exempt / non-exempt status, independent contractor / employee status, hours worked, uncompensated time, meal and rest breaks, improper pay calculations, and other issues. Assignments representative of Mr. Crandall's wage and hour experience include:

- Provided consulting services to defense counsel in a national class-action wage and hour matter alleging that several thousand loan originators at a large banking institution were misclassified under FLSA. Conducted statistical analyses of hours worked records, compensation data, plaintiffs' declarations, and other data to determine if select groups of plaintiffs would be representative of class. Assisted counsel in developing an approach for trial, estimating economic damages, and critiquing plaintiff's trial plan and damages analyses.

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- Provided consulting services and expert services to defense counsel in a class action wage and hour matter alleging several hundred insurance sales originators at a call center were misclassified as exempt workers. Services included analyzing phone system data containing over 5.5 million records and computer login / logout data containing over 250,000 records to estimate overtime hours worked each workweek and the number of missed meal and rest periods. Analyzed compensation data and estimated economic damages for the class.
- Provided consulting services to defense counsel in a wage and hour matter alleging that several hundred loan originators were misclassified as exempt workers. Services included analyzing phone system data containing over 5.3 million records and over 1 million door swipe records to estimate overtime hours worked and the number of missed meals and rest periods each workweek. Analyzed compensation data and estimated damages and penalties for the class for mediation. Also, developed an economic model that estimated exposure based on the probability and economic consequences associated with winning or losing a variety of legal rulings.
- Provided consulting services to defense counsel in a wage and hour matter alleging that several thousand General Managers and Assistant Managers at a large office supply retailer were misclassified as exempt employees. Services included designing and conducting a survey to examine whether class members were appropriately classified, analyzing the company's labor model and human resources data, and conducting statistical analysis related to a variety of class certification issues.
- Provided consulting services and expert witness testimony to defense counsel in a matter alleging hourly workers at a large chain of convenience stores were denied meal and rest periods, that all workers lost vacation pay, and that the employer placed employees on unpaid leave prior to termination to avoid waiting time penalties. Services included data and statistical analysis of over 25 million time clock records in order to examine a variety of issues related to shift duration and break opportunities, analysis of vacation data to determine the number employees impacted by the policy, and analysis of termination records to demonstrate that there was no systematic practice of placing employees on LOA status prior to termination.
- Provided consulting services to defense counsel in a wage and hours matter alleging store managers and assistant store managers at a chain of retail discount stores were misclassified. Services included creating and implementing a survey to examine whether class members were classified appropriately and conducting statistical analysis related to commonality of class-members and other class certification issues. Also, analyzed and critiqued a survey conducted by plaintiffs, assisted counsel in opposing expert depositions, and estimated economic damages for mediation.
- Provided consulting services to defense counsel in a wage and hours matter alleging store managers at a chain of convenience stores were misclassified. Services included creating and implementing a survey to examine whether class members were classified appropriately, analyzing labor models, conducting statistical analysis related to commonality of class-members, assisting counsel in estimating damages for mediation.
- Provided consulting services to defense counsel in a class-action wage and hour matter alleging uncompensated meal periods and breaks, unpaid overtime wages, and minimum wage violations

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at a field maintenance company. Services included creating a database of hours worked from paper and electronic records, and then providing damages estimates based on a variety of assumptions and legal theories.

- Provided consulting services to defense counsel in a multi-plaintiff wage and hour matter alleging that the defendant employer failed to compensate security guards for uniform changing time and other claims of off-the-clock work. Services included designing and conducting an observation study to measure time associated with various activities and estimating damages for mediation.
- Provided consulting services to defense counsel in a wage and hours matter alleging store managers and assistant store managers at a chain of clothing retail stores were misclassified. Services included creating and implementing a survey to examine whether class members were classified appropriately and conducting statistical analysis related to commonality of class-members and other class certification issues.
- Provided consulting services to defense counsel in a class action matter alleging a variety of wage and hour violations for hourly workers at chain of warehouse stores. Services included analyzing over 5.5 million time clock records and payroll data to evaluate allegations of improper time adjustments, missed meal and rest periods, uncompensated split shifts, reporting time violations, overtime and regular rate issues, and off-the-clock work. Also, estimated damages for mediation.
- Provided consulting services to defense counsel in a class action wage and hour matter alleging meal and rest period violations for hourly workers at chain of disabled adult services centers. Services included designing and conducting an observation study to estimate breaks taken and break opportunities. Also, assisted counsel in examining class certification issues and the representativeness of the named plaintiffs' claims.
- Provided consulting services to defense counsel in a national class action wage and hour matter alleging off-the-clock work at a storage company. Services included analyzing company hours data to test plaintiffs' legal theory, reviewing, analyzing, and critiquing a survey conducted by plaintiffs, conducting statistical analyses related to class certification, designing a conducting a survey related to management and timekeeping practices, and estimating economic damages for mediation.
- Provided consulting services to defense counsel in a class action wage and hour matter alleging that several hundred managers were misclassified as exempt workers by a large restaurant chain. Analyzed data and assisted counsel in developing approaches to class certification.
- Provided consulting services to defense counsel in a wage and hour class action matter alleging that the defendant grocery store chain misclassified several hundred non-exempt assistant managers as exempt workers. Services included creating database of hours worked, designing a flexible financial model, and computing damages under a variety of counsel specified scenarios for the purposes of mediation.
- Provided consulting services to defense counsel in a class action matter alleging failure to pay overtime wages to independent sales and service representatives for a large national tool franchiser. Services included designing and implementing an hours survey to determine whether

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the additional hours worked claimed by some plaintiffs was representative of the additional hours worked by the class as a whole. Determined that the problem were isolated to certain geographic areas rather than nationwide.

- Provided consulting services to defense counsel in a matter alleging that a class of several hundred independent contractors were misclassified employees. Services included designing a sampling scheme, building and analyzing a database of business expenses, analyzing the business model, and performing business valuations related to a number of businesses.
- Provided consulting services and expert witness testimony to defense counsel in a NLRB matter alleging that independent contractors package delivery drivers were misclassified employees. Services included analyzing the business model, productivity data, and other business records, and performing business valuations related to several businesses.
- Provided consulting services to defense counsel in a class action matter alleging that independent contractors and their employees/ workers were misclassified employees of the defendant and a large national hardware chain. Services included analysis of the business model to evaluate whether the business model meets the criteria for a business.
- Provided consulting services to defense counsel in a multi-district class action matter alleging that independent contractors in the package delivery business were misclassified employees. Services included analyzing the business model, conducting a variety of surveys, and responding to the class certification report of plaintiffs' expert.
- Provided consulting services to defense counsel in a class action matter alleging that independent contractors were misclassified employees of a trucking and logistics company. Services included analysis of the business model to evaluate whether the business model meets the criteria of a business.
- Provided consulting services to defense counsel in a class action matter alleging that product marketing testers performed off-the-clock work and were denied meals and rest periods. Services included designing and conducting an online survey to evaluate commonality issues.

EMPLOYMENT DAMAGES ANALYSIS

Mr. Crandall has assisted counsel in estimating employment related economic damages in more than seventy-five cases. He has expertise in evaluating but-for earnings, job search efforts, mitigation opportunities, and losses related to stock options and other forms of equity. Assignments representative of Mr. Crandall's experience estimating economic damages include the following:

- Provided consulting services to defense counsel in numerous matters alleging to wrongful termination of police officers, failure to promote police officers, and failure to hire police officers from a variety of police agencies. Services included analyzing labor market opportunities for police officers and creating economic models to estimate economic damages under a variety of career paths and/or retirement scenarios and critiquing the analyses of opposing experts.

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- Provided consulting services to defense counsel in numerous matters alleging wrongful termination, or failure to promote government employees at a variety of city level agencies. Services included creating economic models to estimate damages under a variety of career paths and retirement scenarios.
- Provided consulting services to defense counsel in numerous matters alleging wrongful termination in the grocery industry. Services included creating models to estimate economic damages, analyzing mitigation opportunities, and critiquing the work of opposing experts.
- Provided consulting services to defense counsel in numerous matters alleging wrongful termination in the retail industry. Services included creating models to estimate economic damages, analyzing mitigation opportunities, and critiquing the work of opposing experts.
- Provided consulting services to defense counsel where the underlying issue was a class action failure to hire complaint brought by the EEOC. Services included creating financial models for estimating damages for the ten named plaintiffs, as well as, estimating potential damages for the class.
- Provided consulting services to defense counsel in a breach of contract matter where the underlying issue was related to an alleged failure to deliver stock options to an executive in the high-tech industry. Analyzed options value under a variety of trading strategies.
- Provided consulting services to defense counsel related to numerous matters alleging wrongful termination/failure to promote faculty at a major state university system. Services included creating models to estimate economic damages, critiquing the work of opposing experts.
- Provided consulting services to plaintiff counsel in a National Labor Relations Act right to work case. Services included calculating the economic losses suffered by twenty-five plaintiffs due to alleged illegal acts by their union.
- Provided consulting services to defense counsel in a multi-plaintiff action alleging wrongful terminations by an aerospace and defense contractor. Evaluated plaintiff's expert report, and developed cross-examination questions for deposition and trial. Also, provided a rebuttal analysis of economic damages.
- Provided consulting services to plaintiff's counsel in a matter alleging wrongful termination and breach of contract for a high-ranking executive at a health care company. Evaluated labor market earnings potential, calculated economic damages, reviewed defendant's expert analyses, and drafted a report of findings and a rebuttal report.
- Provided consulting services to plaintiff's counsel in a matter alleging wrongful termination and breach of contract for a highly compensated sales employee in the high-tech industry. Evaluated labor market earnings potential, calculated economic damages, created exhibits for use at mediation, and created trial exhibits.
- Provided consulting services to defense counsel in a wrongful termination matter that alleged discrimination based on national origin brought by a former project manager at a large engineering corporation. Analyzed mitigation factors and calculated loss of earnings.

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- Provided consulting services to plaintiff's counsel in a wrongful termination matter alleging age discrimination brought by an administrative manager at a university. Calculated the plaintiff's loss of earnings and worklife expectancy.
- Provided consulting services to defense counsel in a matter alleging racial discrimination in termination at a retirement community. Calculated damages, performed mitigation analysis, critiqued opposing expert's analysis, and created trial exhibits.
- Provided consulting services to defense counsel in an employment matter alleging wrongful termination of a bank executive. Services included calculating damages, critiquing opposing expert's analysis, and statistical analysis of phone call records related to a bad-faith liability issue.

INSURANCE COVERAGE / ENVIRONMENTAL / STATISTICS

Assignments representative of Mr. Crandall's experience in related to insurance converge, environmental claims, and other statistical matters include:

- Provided consulting services to defense counsel in connection with a Department of Justice investigation regarding allegations of racial profiling by a large city police department. Analyzed departmental data related to over 130,000 traffic stops, pedestrian stops, and other types of police contacts that occurred in four selected weeks in 1997 and four selected weeks in 1999. Cross-referenced traffic stops data with other departmental information sources including human resources data, precinct level paper records, and the officer discipline system to test various hypotheses.
- Provided consulting services to defense counsel in a 17200 action alleging that the defendant insurer was using inappropriate condition adjustments when settling vehicle total loss claims. Services included analyzing theoretical issues related to used car pricing, conducting regression analysis to estimate coefficients for various condition adjustments, and determining the fairness of the settlements amounts for the name plaintiffs vehicles.
- Provided consulting services to coverage counsel in a CERCLA cost recovery action. Created a database of costs relating to the clean up of several sites once used by an aerospace and defense contractor. Performed analysis to apportion clean up costs between covered and not covered.
- Provided consulting services supporting coverage counsel in a binding arbitration where the underlying issue was coverage for thousands of asbestos claims. Performed SAS programming, statistical analysis, created summary exhibits, and drafted a report of findings.
- Provided consulting services to coverage counsel in a class action matter alleging overcharging in workman's compensation insurance. Analyzed the difference in aggregate premium paid and the economic impact of reclassifying certain medical and legal costs.

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- Provided consulting services to coverage counsel for an underlying class action case alleging damages from exposure to asbestos. Analyzed through SAS programming defense and settlement costs for over 100,000 claims. Constructed a model to apportion costs between various insurers and covered and not covered claims.
- Provided consulting services to defense counsel in a class action ADA matter brought against a government transit agency. Created databases from hard copy paper records, analyzed internal agency data, and merged all data to develop a comprehensive database of access failures. Assisted in the design of a statistical sampling scheme for future monitoring of access to the disabled.

FORENSIC ACCOUNTING / BUSINESS VALUATIONS / GENERAL DAMAGES

Assignments representative of Mr. Crandall's experience related to general damages analysis, forensic accounting, finance, and antitrust include:

- Provided consulting services and expert witness testimony to defense counsel in a breach of contract matter. Services included analyzing financial records, estimating damages, and performing a valuation analysis of the plaintiff's business.
- Provided consulting services to defense counsel in a breach of contract matter where the underlying issue was fraudulent inducement of employment. Services included analyzing financial records to determine the value of shareholder equity at various points in time, creating financial models related to economic losses, analysis of financial performance of an unrelated third party to assess but-for opportunity.
- Provided consulting services to plaintiffs' counsel in class-action matter where the underlying issue was fraudulent overcharges of California consumers. Services included estimating the range of potential damages under a variety of scenarios. Filed declaration.
- Provided consulting services to plaintiff's counsel in lender liability arbitration involving a complex financial transaction. Created a financial model that demonstrated the feasibility of the transaction under various interest rate and market return scenarios.
- Provided consulting services to defense counsel in a class action matter alleging unfair business practices related to gift certificate redemptions at a major national retailer. Services included creating survey to determine redemption patterns and analysis of company data.
- Provided consulting services to plaintiff's counsel in a breach of contract matter related to the testing of an innovative dental implant product. Analyzed plaintiff's sales, products, marketing, and sales of plaintiff's competitors, analyzed the products, marketing, and sales of potential market entrants, and developed damages analyses based on a market share approach.
- Provided consulting services to defense counsel in a case alleging usury and fraud. Analyzed accounting records and other data, determined the appropriate interest charges, and quantified overcharge.

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- Provided consulting services to plaintiffs and cross-defense counsel in a tort matter alleging interference with recruiting for high-tech salespeople. Analyzed labor markets and internal recruiting data, and developed damages theory and analyses related to the expected economic return on investments in human capital. Drafted declaration and provided deposition and strategy support.
- Provided consulting services to plaintiff's counsel in a breach of contract matter related to financing sub-prime equipment leases. Reviewed financial records of plaintiff's business, industry data, and cohort data, and developed a financial model projecting lost profits under a variety of default scenarios.
- Provided consulting services to defense counsel in an antitrust matter alleging anti-competitive behavior in large-scale model industry. Performed forensic accounting involving the reconstruction of sales and purchases of a multi-million dollar closely held-entity. Managed process of converting numerous paper records into computerized format and developed database to analyze sales, purchases, and gross profit margins through SAS programming. Performed accounting to determine if the plaintiff was committing fraudulent practices. Provided deposition support including drafting questions for counsel in the depositions of several fact and expert witnesses.
- Provided consulting services to plaintiff's counsel in a breach of contract matter involving a medical device. Performed SAS programming to create a database of sales and customers. Researched the market for the product in question and developed a damages model based on a market share approach.
- Provided consulting services to defense counsel in a medical malpractice action where the underlying damages issue was valuing an income stream from a closely held cash business. Performed accounting of plaintiff's financial records to determine existence and extent of fraud. Created financial models to calculate damages under a variety of scenarios.

INTELLECTUAL PROPERTY

Assignments representative of Mr. Crandall's experience related to intellectual property, trademark, and trade dress disputes include:

- Provided consulting services to plaintiff's counsel in a patent infringement action against a bedding manufacturer. Created database of sales of the patented product by the defendant and plaintiff. Analyzed price erosion caused by the sales of the competing product to the plaintiff's customers and the consequential damages resulting from the diminution of margins.
- Consulting to plaintiff's counsel in a trademark infringement action. Converted paper records to computerized format and created a database of sales attributed to the trademarked product. Analyzed data to calculate profits and consequential damages.

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- Provided consulting services to defense counsel in a patent infringement action involving a high-end coffee cup manufacturer. Analyzed sales data and assisted counsel in determining an appropriate amount for settlement.
- Provided consulting services to defense counsel in a trademark infringement/breach of contract matter. Services included valuing the future income generated through use of the trademark and developing financial models and analyses of damages related to a breach of contract cross-complaint related to potential products that exploited the trademark.
- Provided consulting services to claimant's counsel in a matter alleging patent infringement, trademark infringement, and breach of contract claim involving a food additive. Services included evaluating the market potential for the product and estimating economic damages.

SUMMARY OF WORK EXPERIENCE

Resolution Economics LLC:

Partner, (Los Angeles), 1998 to date
Project Manager
Senior Consultant

Deloitte & Touche, LLP:

Senior Consultant, Dispute Consulting Services, (Los Angeles), 1998.

Altschuler, Melvoin and Glasser LLP:

Staff and Senior Consultant and Marketing Manager, Economics and Litigation Services, (Los Angeles), 1996 to 1998.

Price Waterhouse LLP:

Marketing Manager, Dispute Analysis and Corporate Recovery Group (Los Angeles), 1993 to 1996.

EDUCATION

Loyola Marymount University, Masters of Business Administration
- *Beta Gamma Sigma Honor Society*

University of Southern California, Bachelor of Arts, History

PUBLICATIONS

"Surveys Can Help Court Decide Issues of Commonality", *Los Angeles Daily Journal*, January 28, 2004, Robert W. Crandall and Karyn Model

AFFILIATIONS

Los Angeles County Bar Association – Labor and Employment Section

Society for Human Resources Management

resolution economics llc

Robert W. Crandall, M.B.A.
Attachment to Resume

TESTIMONY AND AFFIDAVITS PRESENTED

In the matter of David H. Verdiner, et al. v. The Pep Boys Manny Moe and Jack of California, et al., Case No. BC279272, related to analysis of economic damages, Affidavit filed August 23, 2002

In the matter of Darlene Eliopoulos v. Estee Lauder Companies, Inc., ELC Beauty LLC, et al., Case No. C02-4217 SBA, related to analysis of economic damages, Report filed September 15, 2003

In the matter of Ralph A. Olivas, Javier Gutierrez, et al., v. Smart & Final Stores Corporation, et al., Case No. 01 CC00077, related to data analysis, Declaration filed November 17, 2003

In the matter of Christina Hartzler v. Oliver Peoples, Inc., Case No. BC286738, related to analysis of economic damages, Trial Testimony on January 22, 2004

In the matter of The Staples, Inc. Class Actions, Judicial Council Coordination Proceeding No. 4235, Lead Case No. 816121, related to supervision of survey, Declaration filed January 29, 2004.
Deposition testimony August 1, 2007 related to design and implementation of an observation study and survey.

In the matter of Darryel D. Simmons v. Herbalife International of America, Inc., Case No. 03-6308 JFW (MCx), related to analysis of economic damages, Report filed July 26, 2004

In the matter of Brian O'Rourke v. Standard Chartered Bank, Case No. 03CV-7363, related to analysis of economic damages, Report filed August 12, 2004

In the matter of Girik Issaian v. Federal Express Corporation, Case No. BC275838, related to analysis of economic damages and business valuation, Trial Testimony on September 9, 2004

In the matter of FedEx Ground Package System, Inc. (Employer) and FXG-HD Drivers Association (Petitioner) National Labor Relations Board Case No. 4-RC-20994, related to business valuations for multiple businesses, Hearing Testimony on February 25, 2005

In the matter of Vicki West, et al. v. Circle K Stores, Inc., Case No: CIV.S-04-0438 WBS (GGH), related to data and statistical analyses of class certification issues, Declaration filed April 8, 2005, Deposition Testimony May 26, 2005, Declaration related to class certification filed March 31, 2006.

In the matter of Roger Sutton v. City of Riverside, et al., Case No: RC 346348, related to analysis of economic damages, Deposition Testimony June 8, 2005, Trial testimony September 29, 2005.

In the matter of Robert Chavez v. City of Los Angeles, et al., Case No: BC324514, related to analysis of economic damages, Trial Testimony October 12, 2005.

In the matter of Reggie Dickenson v. City of Los Angeles, et al., Case No: CV04-7214 ABC (SSx), related to analysis of economic damages, Report filed on January 17, 2006

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In the matter of Dariam Sonyo Ekot v. Herlina Kornelis, et al., Case No: CV01- 11025 NM (FMOx), related to analysis of economic damages, Report filed on March 27, 2006

In the matter of John M. Tolen v. FedEx Ground Package System, Inc., Case No: 155188, related to analysis of business, analysis of economic damages, Deposition Testimony April 27, 2006

In the matter of Michael P. Cieslar v. Pardee Homes, et al., Case No: CV-S-05-1114-LDG-RJJ, related to analysis of economic damages, Report Filed July 12, 2006. Supplemental report filed February 5, 2007. Deposition testimony February 27, 2007.

In the matter of FedEx Ground Package Systems Inc., et al. v. Employment Development Department, Case No: 1485661 (T), related to analysis of market prices of Fed Ex routes, Hearing Testimony July 12, 2006

In the matter of John DeHaan, Cheri Freedman, et al. v. MJM Investigations Inc., et al., Case No: CV 05-0868SGL, related to analysis of survey data and economic damages. Report filed September 5, 2006. Supplemental Report filed September 25, 2006.

In the matter of Mellinger v. City of Los Angeles, Case No: BC 336783, related to analysis of economic damages. Trial testimony September 19, 2006.

In the matter of Mario Carrillo v. Los Angeles County Metropolitan Transportation Authority, Case No: BC 336508, related to analysis of economic damages. Deposition testimony November 17, 2006 and December 21, 2006.

In the matter of Melissa Borck, et al. v. City of Los Angeles, et al. Case No: 99-584GLT, related to analysis of economic damages, Report filed December 11, 2006. Deposition testimony February 13, 2007.

In the matter of FedEx Ground Package System Inc., Employment Practices Litigation, Case No.: 3:05-MD-527 RM (MDL 1700), related to analysis of business model and independent contractor status and class certification issues, report filed January 8, 2007. Deposition testimony March 15, 2007, April 30, 2007, and October 11, 2007. Rebuttal declaration filed June 18, 2007. Supplemental report filed August, 31, 2007.

In the matter of People of the State of California v. Spherion Corporation, et al., Case No: S-1500-CV-256583-NFT, related analysis of labor code violations and economic damages. Deposition testimony January 10, 2007. Trial testimony January 31, 2007

In the matter of Lewis Bressler v. City of Los Angeles, Case No: 336783, related to analysis of economic damages. Trial testimony April 11, 2007

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In the matter of Miguel Garcia, et al. v. Lowe's Companies Inc., et al., Case No: GIC 841120, related to analysis of business model and independent contractor status and class certification issues. Deposition testimony May 16, 2007

In the matter of Axiom Foods Inc. v. Rice Protein Technologies LLC, et al., Case No: 72 133 Y 00427 06 (SHST), related to analysis of economic damages. Report filed May 18, 2007. Arbitration testimony June 6, 2007 and June 7, 2007.

In the matter of M.E.P.CAD, Inc. v. TYCO Fire and Security, and SimplexGrinnell, Case No: 06-CV-00723, related to analysis of economic damages. Report filed June 13, 2007

In the matter of Brenda Lee v. City of Los Angeles, Case No: 336783, related to analysis of economic damages. Trial testimony July 2, 2007

In the matter of Darrin Wright v. Public Storage, Case No: BC352152, related to analysis of economic damages. Trial testimony July 13, 2007

In the matter of Ramon Moreno, et al. v. Guerrero Mexican Food Products, Inc., et. al., Case No: CV05-7737 DSF (PLAx), related to analysis of complex data, information collection approaches, survey issues, and economic damages issues. Report filed July 25, 2007. Deposition testimony August 21, 2007. Declaration filed September 4, 2007. Rebuttal report filed September 10, 2007.

In the matter of Pellegrino, et al. v. Robert Half International, Inc., et al., Case No: 06 CC04518, related to analysis of complex data and economic damages. Deposition testimony October 2, 2007.

In the matter of Rudy Anfinson, et al. v. Federal Express Ground Package System, et al., Case No: 04-2-39981-5-SEA, related to analysis of business model and independent contractor status and class certification issues, report filed October 8, 2007. Deposition testimony November 16, 2007.

In the matter of Ruiz, et al. v. Affinity Logistics Corp., Case No: 05CV2132 R (CAB), , related to analysis of business model and independent contractor status and class certification issues, report filed October 9, 2007. Deposition testimony November 19, 2007.

In the matter of Mitchell Grobeson v. City of Los Angeles, et al., Case No: BC 150151 c/w BC 159142, BS 043521, and BC 049282, related to analysis of economic damages. Deposition testimony October 30, 2007. Trial testimony December 17, 2007.